InterOS
INDEPENDENT INTEROP

Genexis FiberTwist

XGS2000-Series (XGS-PON)

Compact and high-speed network demarcation

BBF.247
XGS-PON CERTIFIED

Where GPON and Point-to-Point (PtP) are starting to hit bandwidth limitations, XGS-PON provides a solution. The well-known FiberTwist now offers an easy Do It Yourself (DIY) upgrade path from GPON and PtP to XGS-PON: increasing the end-user's bandwidth with a single twist.

With the FiberTwist product range, Genexis introduces a unique broadband connectivity solution that redefines size, ease of installation and flexibility for the distribution of fiber bandwidth throughout the entire home.

Key features

· Compact and high-speed XGS-PON network demarcation

· A flexible solution matching both single-dwelling and multi-dwelling deployment scenarios

· TrueTalk™ PON autosensing

· Patented FiberTwist twist-on interface on FTU or Bracket, enabling 100% fool-proof, DIY, end-user installation

· Optional integrated CATV receiver or FXS-port

· 10GE LAN, and up to 3x GE LAN ports to connect external devices, such as a Residential Gateway

Sustainability features

· Power consumption compliant to EU-CoC-BBE

· Housing made of 90% recycled plastics

· Halogen free PCB

· Minimized size to reduce materials

· Surge protection against lightning strikes

A perfect fit for every deployment scenario

The FiberTwist product family has been developed in such a way that it can be integrated into various deployment models, including single-dwelling and multi-dwelling scenarios. Using products from the FiberTwist FTU family, the demarcation point can be extended to any desired location in the home, enabling easy access and installation of services. Its small size makes the FiberTwist a perfect fit in any environment, be it a living room, metering cabinet or basement.

Premium Security Package

Security is not just a feature; it is the cornerstone of protecting your business and enhances the trust of your customers. To strengthen your business and elevate your security standards, enhance your Genexis XGS-PON ONTs with the Genexis Premium Security Package. It is the perfect solution to take security to the next level. Please ask your sales representative for more information.

Product features and specifications

Genexis FiberTwist XGS2000-Series (XGS-PON)

Environment

Dimensions (H x W x D)

· FiberTwist XGS21xxB / XGS2410B	4.33x4.33x1.81 in
· FiberTwist XGS2420	7.09x7.09x2.24 in

Weight

· FiberTwist XGS2110B	6.56 oz
· FiberTwist XGS2114B	6.7 oz
· FiberTwist XGS2120B	8.64 oz
· FiberTwist XGS2410B	7.2 oz
· FiberTwist XGS2420	14.56 oz
Power supply voltage	12 Vdc ± 5%
Operating temperature	32 - 104 °F
Operating humidity (non-condesending)	5% ~ 95%
Storage temperature	-13 - 131 °F
Storage humidity (non-condesending)	10% ~ 100%
Flame retardants	Halogen free

LAN interface(s)

10GE: Compliant with 100/1000/2.5GE/5GE/10GE BASE-T

GE: Compliant with 10/100/1000 BASE-T

Led indicators for speed and activity

User interfaces

1 x Unlock button

1 x LED dimming button

10GE / GE LAN interfaces*

1 x Power connector

1 x Power button

1 x Reset button

1x CATV Output coaxial F-female*

Power consumption (EU-CoC-BBE)

Model	Ready-state	On-state
FiberTwist XGS2110B	4.0 W	4.0 W
FiberTwist XGS2114B	4.1 W	5.1 W
FiberTwist XGS2120B	5.3 W	5.3 W
FiberTwist XGS2410B	4.8 W	4.8 W
FiberTwist XGS2420	5.8 W	7.7 W

WAN interface

1x XGS-PON interface

· Compliant with ITU-T G.9807.1 Annex B

· Compliant with ITU-T G.988

· Compliant with BBF TR-156 issue 4

· Compliant with BBF TR-247

SC/APC connector

N1 optics

· TX (upstream) power	+4 ... +9 dBm
· RX (downstream) power	-9 ... -28 dBm
· TX wavelength	1260 ... 1280 nm
· RX wavelength	1575 ... 1580 nm

TRx allows co-existence with GPON, NG-PON2 and CATV

Interoperable with the major OLT brands in triple-play configurations

Support up to 256 XGEM ports (XGS-PON Encapsulation Method)

32 T-CONT (Transmission Containers)

Dying gasp

FiberTwist XGS2000-Series (XGS-PON) has two different housings, based on specs.

FiberTwist XGS2410B

FiberTwist XGS2420

CATV*

Wavelength (typical)	1550 nm
Optical return loss	min 45 dB
RF passband	45-900 MHz
RF output impedance	75 Ω
F-Connector length	11 mm
AGC optical input power	-9 ... 0 dBm
RF output level (AGC on)	80 or 86 ± 2.5 dBµV
Exception: XGS2130	86 ± 2.5 dBµV
according to CENELEC-42	4% OMI / ch
RF flatness	max 2 dB
Output return loss	max -10 dB
Slope / tilt	1 ... 4 dB
CNR min	47 dB@-8 dBm
CSO / CTB	max -57 dBc
Spurious to carrier	max -57 dBc
MER QAM-64	> 34
MER QAM-256	> 36
Remote management via OMCI (OLT dependent)	

Voice features*

SIP based Voice-over-IP

PacketCable 2.0

Telcordia GT-1089

Codecs

· G.711 (µ-law / a-law)

· G.722 (AMR-WB)

· G.726, G.729

5 REN support

DTMF: In-band, RFC2833, SIP-info

Line Echo cancellation

Class 5 features

Interoperable OLTs - TrueTalk™

Genexis has been an independent PON ONT vendor since 2013. All Genexis ONTs are interoperable and have been field deployed with major OLT brands active in the European and North American markets. Genexis will provide its full support to enable a successful interop. Please ask your sales representative for more information.

Optional additional features*

Premium Security Package

Connectivity Fault Management

TR-069 monitoring

TR-069 firmware download

TR-143 speedtest

Emissions and safety regulations

CE, FCC and ISED approved

Safety:

· IEC EN 62368-1

Laser safety:

· IEC 60825-1: Class 1 laser

Emissions & Immunity:

· EN 55032/CISPR 32:2008, Class B

· EN 55024 / EN 55035

RoHS/WEEE marking:

· Compliant with 2011/65/EU

Surge protection

· Compliant with ITU-T K.21 basic level

Status LEDs

Power	⏻
Fiber uplink status	‹ ›
CATV Status*	▢
Telephony Status*	☏

* Applicable to selected models only

FiberTwist XGS2000-Series (XGS-PON) product models

Model	Type	10GE LAN	GE LAN	CATV	FXS
FiberTwist XGS2110B	Layer-2 XGS-PON ONT	1x	-	-	-
FiberTwist XGS2114B	Layer-2 XGS-PON ONT	1x	-	-	Yes
FiberTwist XGS2120B	Layer-2 XGS-PON ONT	1x	-	Yes (80 ± 2.5 dBµV)	-
FiberTwist XGS2410B	Layer-2 XGS-PON ONT	1x	3x	-	-
FiberTwist XGS2420	Layer-2 XGS-PON ONT	1x	3x	Yes (80 ± 2.5 dBµV)	-

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People Deserve Fiber

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Contact your local sales representative
Or visit us at www. genexis-broadband.com